

## Machine Id **23568** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		WC0912503	WC0891649	
	Sample Date		Client Info		24 Mar 2024	09 Jan 2024	
	Machine Age	mls	Client Info		36704	28324	
	Oil Age	mls	Client Info		0	0	
	Filter Age	mls	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	15	20	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m	>20	2	2	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m	>3	<1	<1	
	Aluminum	ppm	ASTM D5185m		4	4	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		7	15	
	Tin	ppm	ASTM D5185m		<1	<1	
	Vanadium	ppm	ASTM D5185m	10	0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	7	9	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	8	17	
	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.2	0.2	
	Nitration	Abs/cm	*ASTM D7624	>20	6.2	6.6	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	19.3	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	6	8	
	Boron	ppm	ASTM D5185m		6	17	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		59	55	
	Manganese	ppm	ASTM D5185m		1	<1	
	Magnesium	ppm	ASTM D5185m	450	927	863	
	Calcium	ppm	ASTM D5185m		1113	1320	
	Phosphorus	ppm	ASTM D5185m		1077	1079	
	Zinc	ppm	ASTM D5185m		1248	1265	
	Sulfur	ppm	ASTM D5185m		3794	3658	
	0.11.1				0.04		

Oxidation

Visc @ 100°C cSt

Abs/.1mm \*ASTM D7414 >25

ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5

15.1

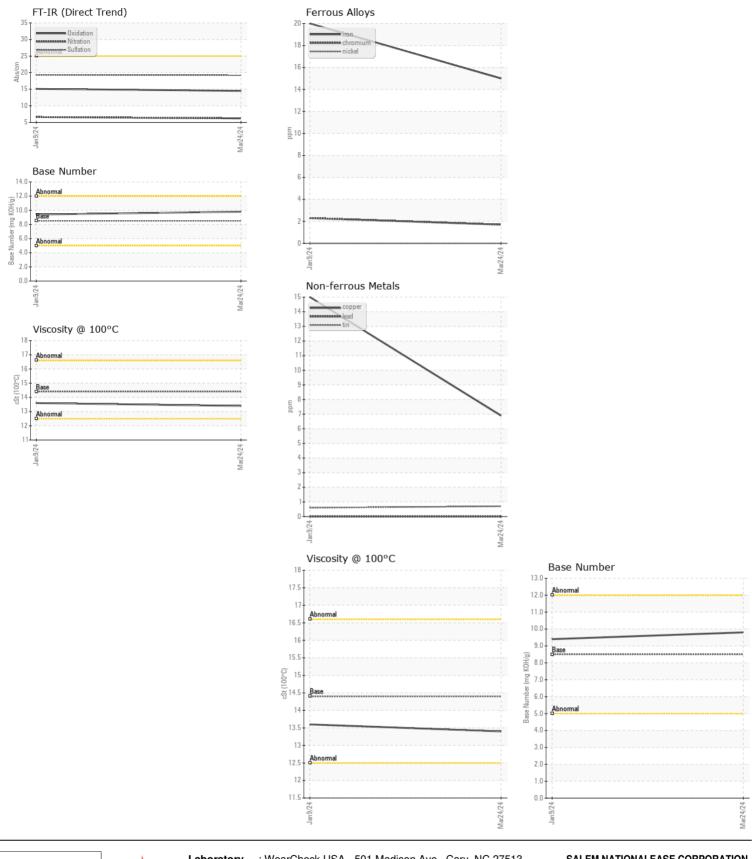
9.4

13.6

14.5

9.8

13.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SALEM NATIONALEASE CORPORATION Sample No. : WC0912503 Received 198 PARK PLAZA DRIVE : 18 Apr 2024 Lab Number : 06153664 Tested WINSTON SALEM, NC : 19 Apr 2024 Diagnosed Unique Number : 10983742 : 19 Apr 2024 - Wes Davis US 27105 Test Package : FLEET **Contact: Audrey Hopkins** Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Audrey.Hopkins@salemcorp.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)767-9642 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2